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SHORT BIOGRAPHY

Prof. Khaled Hamad's educational background includes a Ph.D. and MSc in Civil Engineering from the University of Delaware in the USA and a bachelor's degree in Civil Engineering from An-Najah National University, West Bank, Palestine. His professional affiliations include the American Society of Civil Engineers (ASCE), the Institute of Transportation Engineers (ITE), and the Transportation Research Board (TRB). Prof. Hamad's primary research and professional interests are intelligent transportation systems, traffic operations, highway safety, sustainable transportation, and infrastructure management systems. His work has been published in several peer-reviewed technical journals and conference proceedings. Since 2010, Dr. Hamad has been involved in organizing three engineering education conferences under the International Forum in Engineering Education.

Currently, Dr. Hamad is a professor of civil engineering at the University of Sharjah, UAE, since 2009. Prior to that, he worked as an assistant professor of civil engineering and geomatics at local universities in Palestine. One of Dr. Hamad's main jobs was as an assistant dean for academic affairs at the University College of Applied Sciences in Gaza, Palestine. He was tasked with establishing a new institution and accrediting new technology-related bachelor programs. After completing his Ph.D. in June 2004 until June 2007, Dr. Hamad worked as an Assistant Research Scientist at the Texas A&M Transportation Institute (TTI). While at TTI, Dr. Hamad worked on many research projects related to transportation informatics and archived ITS data for various analyses. He also participated in developing an Internet GIS-based application to automate the utility permitting process located on Texas's state-owned roads.

Before joining TTI, Dr. Hamad worked for the Delaware Center for Transportation at the University of Delaware, where he was actively involved in ITS, GIS, and GPS research projects. His doctoral dissertation involved developing an innovative methodology to predict travel times in the short-term, i.e., several minutes in the near future, for I-66 in Fairfax County, Virginia. During his tenure in Delaware, he led a project to use GPS to collect travel time and delay data from Delaware's major roads. He developed a decision-support system

with a user-friendly GIS-based interface for the Delaware Solid Waste Authority to design their recycling routes. He also has a few years of consulting experience in the Middle East.

Dr. Hamad has received several awards throughout his career, including the Dubai Award for Sustainable Transport, the University of Sharjah Annual Incentive Award for Teaching, the National Science Foundation Student Award, and the US Department of State's Fulbright Scholarship.

EDUCATION

Ph.D., Civil Engineering, University of Delaware, USA, 2004

Dissertation: Hybrid Empirical Mode Decomposition Neuro Model for Short-Term Travel Time Prediction on Freeways

M.Sc., Civil Engineering, University of Delaware, USA, 2000

Thesis: An Innovative Methodology for Vehicular Traffic Demand Forecasting in Developing Countries

B.Eng., Civil Engineering, An-Najah National University, Palestine, 1996

Senior Project: Establishing a Road Monitoring Program for Pavement Maintenance Purposes for the Palestinian Territories

WORK EXPERIENCE

Teaching Experience

Full Professor, University of Sharjah, Sharjah, January 2023–Now

- Teaching several undergraduate and post-graduate courses.
- Played a critical role in the accreditation of several academic programs.
- Led the transportation specialty group.

Associate Professor, University of Sharjah, Sharjah, July 2017–December 2022

- Coordinated the department's Master's program for over five years.
- Developed and taught several new master's and doctorate courses.
- Played a critical role in the accreditation of several programs.
- Led the transportation specialty group.

Assistant Professor, University of Sharjah, Sharjah, September 2009–July 2017

- Developed and taught 16 different undergraduate and graduate courses.
- Carried sometimes hefty teaching load (averaged 16.7 credit hours per semester).
- Received Excellent/Very Good in student evaluation.
- Involved heavily in the accreditation of various academic programs.
- Coordinated senior design projects for many years.
- Co-organized the biennial International Forum on Engineering Education (IFEE).
- Served as Department Associate Chair, assisting the department chair in all academic and administrative matters for over four years.

- Updated transportation lab with specialized software and hardware for conducting research and course projects.

Assistant Professor, University College of Applied Sciences-Gaza, Jan. 2008–Sep. 2009

Adjunct Professor, Islamic University of Gaza, September 2007–September 2009

Adjunct Professor, University of Palestine, September 2007–January 2008

Teaching Assistant, University of Delaware, September 2000–May 2004

Assistant Instructor, Islamic University of Gaza, March 1996–July 1998

Administrative Experience

Graduate Studies Coordinator, Department of Civil & Environmental Engineering, University of Sharjah, September 2017 – September 2022.

Responsible for all issues of the Master's program from admission to graduation and coordinating among the four graduate programs in the department.

Associate Chair for Academics, Department of Civil & Environmental Engineering, University of Sharjah, February 2016-August 2017

Assisted the Department Chair in all matters related to the academic affairs in the Department of Civil & Environmental Engineering

Assistant-to-Chairman, Department of Civil & Environmental Engineering, University of Sharjah, September 2010-August 2014

Assisted the Department Chair in all academic and administrative matters related to running the Department of Civil & Environmental Engineering

Coordinator and Founder, Traffic and Highway Safety Institute, University of Sharjah, September 2012-September 2014

Responsible for establishing this research center at the University of Sharjah

Acting Dean, College of Engineering, University of Sharjah, Summer 2013-2014, and Summer 2009-2010

Assistant Vice Dean for Academic Affairs, University College of Applied Sciences-Gaza, January 2008-September 2009

Responsible for establishing the Bachelor's programs at the college; and hence the academic officer in charge of the newly launched programs, including developing curriculums, writing proposals, obtaining accreditation from the Palestinian Ministry of Education and Higher Education's Accreditation and Quality Assurance Commission, hiring new faculty and staff, developing a master plan for the new campus, revising bylaws, and supervising the day-to-day operations of these programs; also managed several other portfolios, such as international relations, quality assurance, and continuing education.

Research Experience

Co-founding Member, Smart Sustainable Cities Research Group, University of Sharjah, August 2022 - Now.

Co-founded with a group of local and international faculty members, a research group to conduct research projects in smart and sustainable infrastructure systems.

Co-founding Member, Sustainable Civil Infrastructure Systems Research Group, University of Sharjah, Spring 2015 - Now.

Co-founded with a group of faculty members, a research group to conduct research projects in civil infrastructure systems; mainstream research projects as part of the group are sustainable transportation and the environmental impacts of transportation.

Coordinator & Founder, Traffic and Highway Safety Institute, University of Sharjah, University of Sharjah, 2012 - 2014.

Founded this research center with three major tasks: research, education, and service. During this period, I developed several research projects and professional development courses for Abu Dhabi Traffic Police.

Assistant Research Scientist, Infrastructure Management Program, Texas A&M Transportation Institute, June 2004 – July 2007

Worked on many research projects related to transportation informatics and geovisualization of transportation assets, including need assessment, management, and modeling of data generated from transportation operations, design, urban planning, and inventory of utilities in the highway right of way; played a principal role in research projects looking at the use of archived ITS data for various types of analyses. I also participated in developing an Internet GIS-based application to automate the utility permitting process located on Texas's state-owned roads.

Graduate Research Assistant, Delaware Center for Transportation, University of Delaware, September 1998 - May 2004

Worked mainly on a project to collect travel time and delay data using GPS from Delaware's major roads. Responsibilities included: preparing proposals, collecting data, supervising undergraduate research assistants, preparing GIS database and maps, preparing reports, and giving presentations; I also participated in developing a user-friendly decision-support system for the Delaware Solid Waste Authority to design their recycling routes.

Professional Experience

Senior Transportation and Geomatics Specialist, Consultant Engineer, Engineering and Management Consulting Center (EMCC), Gaza, March 2009 – January 2010

Developed a strategic plan for rehabilitation of transportation infrastructure for the Gaza Strip. Wrote proposals and work plans for developing GIS systems for the Palestinian Water Authority, and Municipality of Gaza, among others.

Civil Engineer Intern, Delaware Department of Transportation, June 2003 - August 2003

I have worked with different groups in the traffic division of the Delaware Department of Transportation (DelDOT), with a major task of developing a GIS-based database for DelDOT's Highway Safety Improvement Program, which was to track DelDOT's annual list of safety-improvement-related sites.

Consulting Engineer, Universal Group for Consulting and Engineering, Gaza, Gaza Strip, July 1996 - July 1998

Worked as a structural engineer and transportation engineer, with significant responsibilities including the design of roadway works in three neighborhood upgrading projects in the Gaza Strip and the structural design of tens of residential houses, including a 19-floor building in Gaza City.

SELECTED UNIVERSITY SERVICES

Institution	Committee	Role	Period
University of Sharjah	University Learning Environment Committee	Member	April 2021– August 2022
	University Information Technology Governance Committee	Member	September 2020 – September 2021
	Committee for Re-accreditation of Ph.D. in Engineering Management Program	Member	November 2020– January 2021
	University Committee to Complete Application Required for Sustainability Tracking, Assessment, and Rating System (STARS)	Member	December 2019 – Now
	University Committee to Apply for UI GreenMetric World University Rankings on Sustainability	Member	September 2017– Now
	University Transportation Sustainability Circle	Leader	February 2019 - Now
	Executive Board of Institute of Leadership in Higher Education (IL HE)	Member	September 2018-Now
	CEE Master's Program	Coordinator	Sep. 2017–Sep. 2022
	College of Engineering Graduate Studies Committee	Member	September 2018 – September 2022
	CEE Department Graduate Studies Committee	Chair	September 2017 –Now
	University Committee to Revise Academic Policies & Procedures at the University of Sharjah	Member	November 2019– Dec. 2019
	University Committee to Propose Alternative Solutions to Examining and Grading Students under Extraordinary Situation of Spring 2019-2020	Member	April 2020-May 2020
	University Committee for Enhancing Learning Environment at the University of Sharjah	Member	November 2018-July 2020
	Ad-hoc University Committee to Apply for Dubai's Road Transport	Chair	November 2018

	Authority Award for Sustainable Transport - Best Academic Institution Supportive of Sustainability		
	College of Engineering Accreditation Committee	Chair	September 2018–August 2020
	CEE Department Accreditation Committee	Chair	December 2018–August 2020
	Committee for Accreditation of BSc in Water Desalination Engineering	Chair	September 2018–May 2019
	CEE Department Strategic Planning Committee	Member	November 2018–July 2020
	University Committee for Strategic Champions of Teaching and Learning	Member	March 2019–October 2019
	University Committee to Update University of Sharjah's Faculty Handbook	Chair	March 2018–May 2018
	College of Engineering Teaching Load Reduction Committee	Member	February 2018–March 2018
	College of Engineering Strategic Programs Review Committee	Member	November 2017–March 2018
	College of Engineering Graduate Studies & Research Committee	Member	September 2017–August 2018
	University Committee for Road Safety	Chair	May 2017–November 2017
	College of Engineering ABET Accreditation Committee	CEE Representative	February 2016–November 2016
	University Campus Sustainability Committee	Member, Chair of Sustainable Transport sub-committee	October 2016–September 2017
	College of Engineering Teaching & Learning Committee	CEE Representative	September 2016–August 2017
	College of Engineering Council	Elected Member/CEE Representative	September 2015–August 2017
	CEE Department Undergraduate Program Committee	Chair	September 2016–August 2017
	University Committee to Prepare Campus for People with Disabilities	Member	Spring 2016–August 2019
	College of Engineering Research Committee	Member	2014-15

	College of Engineering Accreditation Committee	Member	2013-14
	CEE Department Committee for Selecting New Faculty	Chair/Co-chair	2011-15
	CEE Department Committee for Outreach & Community Service	Chair	2014-16
	College of Engineering Student Disciplinary Committee	Member	2012-13
	Teaching and Learning Department Committee	Member	2011-15
	Traffic and Highway Safety Institute, University of Sharjah	Founder and Coordinator	2012-14
	CEE Department Committee for Laboratories and Commercial Testing	Member	2010-14
	CEE Department Committee for Research & Graduate Studies	Member	2010-15
University College of Applied Sciences-Gaza	Developing a Master Plan for New Campus	Chair	2008-09
	Drafting Basic Bylaws and Faculty Bylaws	Chair	2008-09
	Committees for Hiring New Faculty	Chair	2008-09
	Committee for Revising University Requirements	Chair	2008-09

TEACHING AND LEARNING

Accreditation Experience

Institution	Committee	Role	Period
University of Sharjah	Department Accreditation Committee	Member	September 2021–Now
	College of Engineering Committee for Full Accreditation of Ph.D. in Engineering Management Program	Member	Nov. 2020–Feb. 2021
	College of Engineering Accreditation Committee	Chair	Sept. 2018–Aug. 2020
	UAE Commission for Academic Accreditation's Full Accreditation of Civil Engineering Master's Program	Chair/Member	November 2018–May 2021
	UAE Commission for Academic Accreditation's Full Accreditation of Civil Engineering Bachelor Program	Chair/Member	November 2018–May 2021
	College of Engineering's Accreditation Committee for BSc in Water Desalination Engineering	Chair	September 2018–January 2019

	Vice-Chancellor of Research & Graduate Studies' Committee to Prepare a master's degree in Geographic Information Systems & Remote Sensing	Member	Spring 2016– Spring 2018
	ABET Accreditation Committee – College of Engineering	CEE Department Representative	Spring 2015- 16 to Fall 2016-17
	ABET Accreditation Committee – Department of Civil & Environmental Engineering	Co-chair	Fall 2015-16 to Fall 2016- 17
	UAE Commission for Academic Accreditation's Initial Accreditation of Civil Engineering, Ph.D. Program	Member	2015-16 to 2018-19
	University of Sharjah Accreditation Application for Southern Association of Colleges and Schools (SACS)	Task Force	2015-16
	UAE Commission for Academic Accreditation's Re-Accreditation of Civil Engineering Undergraduate Program	Member	2013-14
	UAE Commission for Academic Accreditation's Full Accreditation of Civil Engineering Master's Program	Member	2013-14
	UAE Commission for Academic Accreditation's Initial Accreditation of Diploma in Building Construction and Diploma in Surveying at Community College	Coordinator	2013-14
	College of Engineering Preparation for Southern Association of Colleges and Schools (SACS) Accreditation Committee	Member	Spring 2012
	ABET Initial Accreditation Committee – Department of Civil & Environmental Engineering	Member	2010-11
University College of Applied Sciences- Gaza	Accreditation Committees of Six Bachelor's degree programs: Geographic Information Systems, Building Construction Engineering, Development Planning, Technology Education, Technology Management, and Contemporary Islamic Preaching	Chair	2007-09
Islamic University of Gaza	Accreditation Committee of Bachelor's in Geomatics Engineering	Member	2008-09

University of Palestine	Accreditation Committee of Bachelor's in Civil Engineering & Geomatics	Member	2007-09
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Course & Program Development

Institution	Contribution	Period
University of Sharjah	Proposed and developed several new courses for the Ph.D. in Civil Engineering Program	2016-17
	Developed and taught a new graduate course entitled Applied Traffic Operations	Sp16-17
	As the Chair of the Department Undergraduate Program and Member of the College of Engineering Teaching & Learning Committee, I supervised and coordinated the development of four new civil engineering courses (approved by the University in Fall 16-17)	2016-17
	Developed and taught a new graduate course entitled Intelligent Transportation Systems	Sp15-16
	Developed, coordinated, and taught most of the Transportation Engineering courses in the Civil Engineering Program.	2015-16
	Proposed and developed a new undergraduate course entitled Introduction to GIS for Civil Engineers	2015-16
	Developed and taught a new graduate course (Advanced Topics in Transportation), which introduced graduate students to Geographic Information Systems and its applications in transportation	2013-14
	Re-designed the most significant learning experience in the Civil Engineering study plan, i.e., Senior Design Project, in compliance with ABET accreditation requirements, while serving as the Department's Senior Design Project Coordinator for many years.	Fall 2010-11 to Spring 2014-15
	Initiated and implemented numerous changes to improve the Civil Engineering Undergraduate Program	2010-15
	Revised all transportation engineering-related courses' syllabi and outcomes in response to ABET and Emirates National Qualification Framework	2010-14
Arrowad Colleges, Riyadh, KSA	Reviewed and revised Arrowad Colleges' proposed Civil Engineering Undergraduate Program; prepared course outlines for most of the program's courses.	2016-2017
University College of Applied Sciences-Gaza	Developed and taught two new courses: GIS Programming & Customization and Digital Geographic Applications	2007-09
Islamic University of Gaza	Proposed two new courses: Systems Engineering for Civil Engineers (Undergraduate course to replace Engineering Economics) and Soft Computing Applications in Civil Engineering (Graduate course)	2008-09

University of Palestine	Developed and taught two new courses: Transportation Engineering (Undergrad) and Statistics for Managers (Graduate)	Fall 2007-08
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Teaching Experience

Institution	Course	Level	Period
University of Sharjah	Soft Computing Applications in Civil Engineering	Graduate (Ph.D.)	Sp21-22, Sp20-21, Fa19-20
	Traffic Flow Theory	Graduate (Ph.D.)	Fa21-22
	Transportation System Analysis	Graduate (Ph.D.)	Sp20-21
	Intelligent Transportation Systems	Graduate (MSc)	Fa20-21, Fa18-19, Sp15-16
	Applied Traffic Operations	Graduate (MSc)	Fa22-23, Sp16-17
	Advanced Topics in Transportation	Graduate (MSc)	Fa12-13
	GIS for Transportation	Graduate (MSc)	Sp22-23
	Transportation Engineering	Undergraduate (BSc)	Sp22-23, Fa22-23, Sp21-22, Fa21-22, Sp20-21, Fa20-21, Sp9-20, Fa19-20, Sp18-19, Fa18-19, Sp17-18, Fa17-18, Sp16-17, Fa16-17, Sp15-16, Fa15-16, Sp14-15, Fa14-15, Sp13-14, Fa13-14, Su12-13, Fa12-13, Su11-12, Fa11-12, Sp10-11, Fa10-11, Sp09-10, Fa09-10
	Highway Design	Undergraduate (BSc)	Sp14-15, Fa14-15, Sp13-14, Fa13-14, Sp12-13, Fa12-13, Fa11-12
	Traffic Systems Design	Undergraduate (BSc)	Fa19-20, Sp11-12, Sp10-11
	Senior Design Project I and II (Coordinator)	Undergraduate (BSc)	Sp14-15, Fa14-15, Sp13-14, Fa13-14, Sp11-12, Fa11-12, Fa10-11, Sp09-10
Engineering Economics	Undergraduate (BSc)	Su22-23, Sp22-23, Su21-22, Fa21-22, Su20-21, Sp20-21, Su19-20, Sp9-20, Su18-19, Su17-18, Sp17-18, Fa17-18, Su16-17, Fa16-17, Su15-16, Fa15-16,	

			Su14-15, Su13-14, Sp12-13, Su11-12, Su10-11, Su09-10
	Surveying	Undergraduate (BSc)	Sp11-12, Sp10-11, Fa10-11, Sp09-10, Fa09-10
	Special Topics in Transportation	Undergraduate (BSc)	Fa10-11, Fa 09-10
	Transportation & Environment	Undergraduate (BSc)	Sp11-12
University College of Applied Sciences	GIS Programming and Customization	Undergraduate (Assoc.)	Fa 08-09
	Digital Geographic Applications	Undergraduate (Assoc.)	Fa 07-08, Fa 08-09
Islamic University of Gaza	Engineering Economy	Undergraduate (BSc)	Sp 08-09, Fa 08-09, Sp 07-08, Fa 07-08
	Geographic Information Systems	Graduate (MSc)	Sp 08-09
University of Palestine	Transportation Engineering	Undergraduate	Fa 07-08
	Statistics for Managers	Graduate (MSc)	Fa 07-08
University of Delaware	Teaching Assistant for the following courses: Intro to Civil Engineering and Civil Engineering Systems	Undergraduate (BSc)	2000 - 2004

Professional Training Courses Delivered

1. 20-hour Training Program on Transportation Planning for the Sharjah Department of Planning and Land. Conducted via Center for Continuing Education and Community Service, University of Sharjah, Sharjah, UAE – February 2018
2. Workshop to train about 100 employees of Dubai Road & Transport Authority on how to conduct scientific research, Dubai, UAE – July 2016 & November 2017
3. Capacity Building Workshop to train over 800 university and high-school participants every year to prepare them for Emirates Foundation's Think Science Competition, Dubai and Abu Dhabi, UAE – 2013, 2014, 2015, 2016, 2017, and 2018
4. Workshop to train over 60 selected professionals from academia and industry on judging Emirates Foundation's Think Science Competition, Dubai, UAE – 2012, 2013, 2014, 2015, 2016, and 2017
5. Workshop to train over 70 selected professionals from academia and industry on judging Intel Science Competition-Arab World, Amman, Jordan, 2013
6. Workshop to train over 70 selected professionals from academia and industry on judging Intel Science Competition-Arab World, Dubai, UAE, 2012
7. Highway Design & Safety for Al-Ain Municipality. Conducted via Center for Continuing Education and Community Service, University of Sharjah, Sharjah, UAE – November 2015
8. Highway Design & Safety and Traffic Design & Management. Prepared for Abu Dhabi Traffic Police, Abu Dhabi, UAE – 2013
9. TxDOT - Utility Installation Request System. Conducted for several districts of Texas Department of Transportation, Texas, USA – 2007

SUPERVISION OF GRADUATE STUDENTS

Supervised/Co-supervised

Institution	Student	Title	Thesis/ Dissertation	Date Completed
University of Sharjah	Lubna Obaid	Unmanned Aerial Vehicles and Artificial Intelligence for Traffic and Safety Analysis of Roundabouts	Doctorate Dissertation (Co-supervised with Prof. Rami Al-Ruzouq)	Ongoing
	Nael Shadid	Forecasting Ferry Passenger Demand Using Seasonal Autoregressive Integrated Moving Average and Recurrent Neural Network	Master's Thesis (Supervisor)	Ongoing
	Mohamad Tulimat	Quantifying the Impacts of CAVs on Traffic Operations, Safety, and Environment in a Mixed Roadway Environment	Master's Thesis (Supervisor)	Ongoing
	Hussain Al-Ali (GIS & Remote Sensing Master's Program)	GIS-Based Spatiotemporal Analysis of Property-Damage-Only Accidents, Sharjah, UAE	Master's Thesis (Co-supervised with Prof. Rami Al-Ruzouq)	May 2023
	Yahya El Traboulsi	The Impact of COVID-19 on UAE's Mobility: Short- and Long-Term Assessment	Master's Thesis (Co-supervised with Prof. Abdullah Shanableh and Prof. Rami Al-Ruzouq)	May 2023
	Inas Khalifa	Spatiotemporal Analysis of Ambient Air Quality in the UAE using Ground-Based Observations and Satellite Images	Master's Thesis (Co-supervised with Prof. Abdullah Shanableh and Prof. Rami Al-Ruzouq)	May 2023
	Dina Al-Ani	Comprehensive Safety Evaluation of Roundabouts in Sharjah	Master's Thesis (Supervisor)	Ongoing
	Ahmed Al Yassi	Modeling Sharjah's Travel Mode Choice Using Machine Learning	Master's Thesis (Supervisor)	June 2022
	AlAnoud Al-maazmi	Severity Analysis of Sharjah Crashes Using Machine Learning Techniques	Master's Thesis (Supervisor)	December 2021

Fahmieh Lotfi	Developing an Artificial Neural Network Mode-Choice Model for Sharjah University City, United Arab Emirates	Master's Thesis (Supervisor)	May 2021
Ala G. Ibrahim	Characterization of Truck Traffic toward the Implementation of Mechanistic-Empirical Pavement Design Guide in Sharjah	Master's Thesis (Co-supervised with Dr. Waleed Zeiada)	May 2020
Lubna Obaid	Forecasting Travel Demand at Sharjah University City	Master's Thesis (Supervisor)	December 2019
Abdul Razak Alozi	Quantifying the Impacts of Connected and Autonomous Vehicles on Traffic Operation and Greenhouse Gas Emissions Using Micro-Simulation	Master's Thesis (Supervisor)	May 2019
Abdulsalam Birawi	Analysis and Prediction of Traffic Fatalities in Dubai	Master's Thesis (Co-supervised with Dr. Muamer Abuzwidah)	May 2019
Lina Shakfa	Development of a Green Pavement Rating System for UAE Roads	Master's Thesis (Co-supervised with Dr. Waleed Zeiada)	March 2018
Eslam Al-Ali	Comparing the Performance of Artificial Neural Networks and Random Forests Models for Predicting Incident Duration	Master's Thesis (Main Supervisor)	December 2017
Abdou Lkarim Ismail	Evaluating Operational and Safety Performance of Directional Interchange with Semi-Direct Ramp Connections and Loops	Master's Thesis (Supervisor)	July 2017
Mariam Al-Hmoudi	Evaluation and Modeling of Pedestrian Safety in the Emirate of Sharjah, UAE	Master's Thesis (Co-supervised with Dr. Muamer Abuzwidah)	January 2017
Mohamad Ali Khalil	Predictive Models for Free Field Road Traffic Noise in Sharjah City United Arab Emirates	Master's Thesis (Main Supervisor)	January 2016
Noor Al Majdalawi	Calibration of Gap Acceptance Based Roundabout Capacity Models Using Locally Measured Parameters in Sharjah	Master's Research Project (Supervisor)	January 2015
Shiekha Alzuwain,	Multi-Objective Vehicle and HAZMAT Routings Problem	Master's Research Project (Co-	January 2015

		Based on Community Judgment Sharjah City as A Case Study	supervised with Prof. Abdullah Shanableh)	
	Hassan Abu Hamda	Estimating Base Saturation Flow Rate and U-Turn and Left-Turn Adjustment Factors for Selected Signalized Intersections in Doha, Qatar	Master's Thesis (Supervisor)	January 2015
	Rulla Raad	Fuzzy logic Risk-based Framework for HAZMAT Routing	Master's Thesis (Main Supervisor)	January 2015
	Iyad Sahaboon	Multi-Objective Comprehensive Risk-Based Vehicle Routing Analysis Framework Sharjah City as a Case Study	Master's Thesis (Main Supervisor)	May 2014

Member of Examination Committee

Institution	Student	Supervisor	Title	Thesis/ Dissertation	Date
Graz University of Technology, Austria	Mohsin Balwan	Prof. Martin Fellendorf	Modeling Red Time Counters at Actuated Traffic Signals	Ph.D. Dissertation	September 2018
University of Technology Sydney, Australia	Fatma Al-Widyan	Dr. Ahmad Alani	An Effort-Based Model for Pedestrian Route Choice Behaviour	Ph.D. Dissertation	September 2017
University of Sharjah	Naseeb Talal Asaad Albakri	Prof. Rami Al-Ruzouq	Satellite Observations and Spatial Regression to Assess Land Surface Temperature at Different Land Use Land Cover	Master's Thesis (GIS)	May 2023
	Ahmed Talat	Dr. Muamer Abuzwidah	Assessment of Traffic Safety and Operation of Connected and Autonomous Vehicles During Adverse Weather Conditions	Master's Thesis (Civil Engineering)	May 2022
	Sainab Feroz	Dr. Saleh Abu Dabous	Drone-based Three-Dimensional Modelling for Monitoring of Bridge Infrastructure	Master's Thesis (Civil Engineering)	May 2022
	Abdelaziz Waleed	Prof. Rami Al-Ruzouq	Spatio-temporal Analysis of Urbanization and Urban Heat Island Using Satellite	Master's Thesis (Civil Engineering)	May 2022

			Imagery and In-situ Observations: Sharjah City		
Nafisa Khalid Kaisari	Dr. Muamer Abuzwidah		Assessment of Adverse Weather Impacts on Traffic Safety in The United Arab Emirates	Master's Thesis (Civil Engineering)	December 2021
Alaa Sukkari	Prof. Ghazi Alkhateeb		Estimating Asphalt Film Thickness in Asphalt Mixtures Using Microscopy to Further Enhance the Performance of UAE Roadways	Master's Thesis (Civil Engineering)	December 2021
Mohamed Yousry El Damaty	Dr. Saleh Abu Dabous		Analysis and Modelling of Delays during Construction Handover Stage	Master's Thesis (Civil Engineering)	December 2021
Ali Juma Alnaqbi	Dr. Waleed Zeiada		Performance Assessment of Polymer Modified Asphalt Binders against Rutting and Fatigue to Meet Local Conditions in the UAE	Master's Thesis (Civil Engineering)	March 2021
Fawzi Mehdawi	Dr. Muamer Abuzwidah		The Gap and its Reduction Between Theory and Reality of Construction Schedules in the UAE	Master's Thesis (Civil Engineering)	December 2020
Sara Ayman	Dr. Ghazi Alkhateeb		Evaluating the Performance of Date Seeds Bio-Modified Asphalt Binders	Master's Thesis (Civil Engineering)	May 2020
Ala Saif Eldin Sati	Dr. Saleh Abu Dabous		International Roughness Index-Based Markov chain Model for Predicting Asphalt Pavement Condition	Master's Thesis (Civil Engineering)	December 2019
Walaa Ishnaineh	Dr. Ali Cheaitou		A Newsvendor Based Pricing Model for Liner Shipping with Vessel Speed Optimization	Master's Thesis (Industrial Engineering)	November 2018
Mey Al-Suwaidi	Dr. Maher Omar		Predicting Allowable Bearing Capacity and Settlement of Shallow Foundations Using	Master's Thesis (Civil Engineering)	May 2016

			Artificial Neural Networks in Sharjah, UAE		
	Fatima Humaid	Dr. Imad Alsyouf	Identification of Causes of Road Asset Accidents using FEMA Methodology: A Study in Sharjah	Master's Research Project (Engineering Management)	May 2016
American University of Sharjah	Osama ElSahly	Prof. Akmal Abdelfatah	Detection of Traffic Incidents Using Machine Learning Techniques	Ph.D. Dissertation	April 2023
	Osama ElSahly	Dr. Akmal Abdelfatah	Effect of Autonomous Vehicles on Freeway Traffic Performance	Master's Thesis	November 2018
	Mahmoud Taha	Dr. Akmal Abdelfatah	Impact of Using Indirect Left-Turns on Signalized Intersections' Performance	Master's Thesis	May 2015
	Amro Abdul Wahid	Dr. Akmal Abdelfatah	Impact of Exclusive Bus Lanes on Traffic Performance in Urban Areas	Master's Thesis	May 2015
	Azza Ahmed Abdallah	Dr. Ghassan Abu-Lebdeh	Modelling the Impact of a Bottleneck on Arterial Travel Time Using Neural Networks	Master's Thesis	June 2012
Qatar University	Suhaib Al-Allawi	Dr. Mohammad Ghanim	Estimate of Near-Saturated Delay at Signalized Intersections for the Local Conditions in the State of Qatar	Master's Thesis	May 2017
Islamic University of Gaza	Hussein Abu Zarifa	Dr. Yahya Sarraj	Traffic Impact of Planned Gaza Seaport on Major Roads in Gaza Strip	Master's Thesis	June 2016

RESEARCH PROJECTS, GRANTS, AND FUNDS

Project	Researchers	Funding Type	Granting Institution	Date
Using Unmanned Aerial Vehicles for Traffic Operations and Safety Analysis of Roundabouts	Khaled Hamad (PI), Thar Baker Shamsa, Rami Al-Ruzouq, Saleh	Collaborative Research Grant (200,000 AED + 200,000 AED)	University Research Board	September 2022

	Abu Dabous, Karim Ismail (Canada), and Mohsin Balwan (Sharjah RTA)			
Real-time Traffic Navigation based on Cloud-Fog Computing for Smart Cities	Zaher Al Aghbari (PI), Naveed Ahmed, Thar Baker Shamsa, and Khaled Hamad	Collaborative Research Grant (146,000 AED)	Sciences and Engineering Research Institute (RISE)	July 2022
Empirical Investigation of Visual Factors Affecting the Legibility of Arabic Highway Signs	Shaima Elbardawil (PI) and Khaled Hamad	Competitive Research Grant (80,000 AED)	University Research Board	Feb. 2021
Assessment of COVID-19 Lockdown on Air Pollution in the UAE Using Satellite and Ground Monitoring and Potential Impacts on Human Health	A. Shanableh (PI), R. Al-Ruzouq, and K. Hamad	Collaborative Research Grant (230,000 AED)	Sciences and Engineering Research Institute (RISE)	June 2020
The COVID-19 and Swift Transition to the Virtual Learning Environment: Opportunities and Challenges in Higher Education Context	Semiyu Aderibigbe (PI), Maher Omar, A. Shanableh, Hussein ElMehdi, Khaled Hamad	Collaborative Research Grant (155,800 AED)	University of Sharjah	June 2020
Potential Impact of Climate Change on Traffic Safety and Transportation System Performance in the UAE	Muamer Abuzwidah (P.I.), W Zeiada, K Hamad	Research Grant (185,000 AED)	UAE Ministry of Infrastructure Development	April 2019
Developing Travel Demand Forecasting Model for Sustainable Sharjah University City	K Hamad (P.I.), Muamer Abuzwidah, and Emad Mushtaha	Competitive Research Grant (80,000 AED)	Sharjah Research Academy	April 2018
Quieter Pavement Solutions for UAE Highways	W Zeiada (PI), K Hamad (Co-PI), A Shanableh, and R Al-Ruzouq		Sciences and Engineering Research Institute (RISE)	Pending
Multi-Temporal Satellite Remote Sensing Assessment and Change	R Al-Ruzouq (PI), A Shanableh, W		Sciences and Engineering Research Institute (RISE)	2017

Detection of Urban Heat Island in Sharjah City	Zeiada, and K Hamad			
Modeling and Mapping of Road Traffic Noise in Sharjah City	K Hamad (P.I.), A Shanableh, R Al-Ruzouq, and H El-Mehdi	Collaborative Research Grant (150,000 AED)	University of Sharjah	November 2015 – May 2017
Quality Assurance in Engineering Education and Programs Linkages between University of Sharjah, UAE and Royal Institute of Technology, Sweden	A. Shanableh (PI), M. Bettayeb, M. Omar, K. Hamad	Competitive International Grant	European Union	October 2015- May 2017
Evaluation of Roads and Parking Design to Improve Traffic Safety and Operation at University City of Sharjah	Muamer Abuzwidah (P.I.) and K Hamad	Seed Research Grant	University of Sharjah	April 2016 – Now
Decision Support System for Condition Assessment of Transportation Infrastructure in the UAE	S Abu Dabous (P.I.), W Zeiada, K Hamad	Seed Research Grant	University of Sharjah	May 2015 – Now
Development of Weather, Soil, Traffic Database for the Implementation of Mechanistic-Empirical Pavement Design in Sharjah	W Zeiada (PI), T Merabtene, M Omar, K Hamad	Seed Research Grant	University of Sharjah	January 2015 – Now
Developing a Decision-support Tool for Evaluation of Roundabouts in UAE	K Hamad (PI.)	Seed Research Grant	University of Sharjah	January 2010 – January 2012
Data Model and Guidelines for Managing Engineering Design Data in a GIS Environment	Cesar Quiroga (PI), K Hamad, et al.	Competitive Research Grant	FHWA/TxDOT 0-5246	September 2005 – August 2007
Using Archived ITS Data and Spatial Statistics for Optimizing Incident Response at Transportation Management Centers	Cesar Quiroga (PI), K Hamad, et al.	Competitive Research Grant	FHWA/TxDOT 0-4745	September 2005 – August 2007
Strategies for Managing Transportation Operations Data	Cesar Quiroga (PI), K Hamad, et al.	Competitive Research Grant	FHWA/TxDOT 0-5257	September 2003 – August 2005
GIS-Based Inventory of Utilities	Cesar Quiroga (P.I.), Edgar Kraus, and K Hamad	Implementation Research Grant	FHWA/TxDOT 5-2110-01	September 2003 – August 2006

GIS-based Recycling Routes	A Faghri (PI), Malcolm, K. Hamad, S Chattopadhyay	Research Grant	Delaware Solid Waste Authority	September 2002 – August 2003
Application of Global Positioning System (GPS) to Travel Time and Delay Measurements	A Faghri (PI), K. Hamad, et al.	Implementation Research Grant	Delaware Department of Transportation	September 2000 – August 2004

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- [1] **Hamad**, Khaled; Obaid, Lubna; Bou Nassif, Ali; Abu Dabous, Saleh; Al-Ruzouq, Rami; Zeiada, Waleed, “Comprehensive evaluation of multiple machine learning classifiers for predicting freeway incident duration.” *Innov. Infrastruct. Solut.* 8, 177 (2023). <https://doi.org/10.1007/s41062-023-01138-1>
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SELECTED SERVICE TO PROFESSION AND COMMUNITY

Service/Event/Activity	Role	Period
Mini-symposium on Using UAVs for Traffic and Safety Analysis_Announcement	Organizer and Speaker	June 15 th , 2023
Delivered a presentation titled “Sustainable Transportation at Campus: University of Sharjah Experience,” at The First International Conference & Expo on Innovation and Sustainability in Engineering & Technology (ICEISET-23), Palestine	Keynote Speaker	June 14 th , 2023
Conducting a traffic study of Sharjah University City	Lead a joint committee with Sharjah Road & Transport Authority, Sharjah University City, and Sharjah Police	September 2022-January 2023

The 38 th International Symposium on Automation and Robotics in Construction 2021, Dubai, UAE	Local Chair with the UAE Ministry of Energy and Infrastructure	May 2019 - November 2021
Sharjah International Conference for Water, Energy, and Climate Change	Member of Scientific Committee	December 2020 - November 2021
Memorandum of Understanding between SAAED for Traffic Systems and University of Sharjah	Drafted and negotiated the MoU	June 2020
The 2021 9 th International Conference on Traffic and Logistic Engineering (ICTLE 2021), Macau	Member of the Technical Committee	August 9-11, 2021
Transportation Research Board 99 th Annual Meeting, Washington, DC, USA	Presenter	January 12-16, 2020
26 th World Road Congress, Abu Dhabi, UAE	Member of UAE Universities Organizing Committee	October 6-10, 2019
26 th World Road Congress, Abu Dhabi, UAE	Presenter	October 6-10, 2019
PTV IMEA Mobility Day	Presenter	November 14th, 2019
Emirates Foundation's Think Science Competition	Co-chair of Judging Committee	2012 - 2019
Dubai Road and Transport Authority's Research Award	Member of Judging Committee	2012 - Now
Transportation Research Board 97 th Annual Meeting, Washington, DC, USA	Presenter	January 2018
Dubai RTA Scientific Research Workshop	Trainer	October 2017
The Minister of Interior Award for Scientific Research	Judge of Traffic-Related Research Projects/Papers	2017 - Now
8 th International Forum on Engineering Education (IFEE-17) Conference, 18-20 April 2017	Co-chair of Organizing and Scientific Committees	February 2016 – April 2017
International Conference on Advances in Sustainable Construction Materials & Civil Engineering Systems (ASCMCES-17) 18-20 April 2017	Member of Joint Organizing Committee and Co-chair of Joint Scientific Committee	February 2016 - April 2017
Dubai Road and Transport Authority's Innovation Lab on "Futuristic Shared Mobility in Dubai"	Presented and Panel Discussant on Carpooling	November 26th, 2016
2016 Gulf Traffic Exhibition and Conference, Dubai, UAE	Presenter & Awards Judge	13-15 November 2016
Dubai RTA Scientific Research Workshop	Trainer	July 21st, 2016
5 th International Conference on Traffic and Logistic Engineering (ICTLE 2016), Dubai, UAE	Member of International Technical Committee, Co-Presenter	25-26 April 2016
7 th International Forum on Engineering Education (IFEE2015) Jointly with 3 rd Towards Sustainable Development International Conference (3 rd TSDIC2015),	Co-chair of Organizing and Scientific Committees	2014-15

University of Sharjah, UAE, 17-19 March 2015		
2016 GISWORX: Regional GIS Workshops and Exhibitions for ESRI Users, Dubai, UAE	Co-presenter	19-21 April 2016
Conference of ASEAN Road Safety 2015 (CARS 2015), Kuala Lumpur, Malaysia	Presenter	November 2015
Transportation Noise and Vibration Analysis by Dr. Ahmed El-Aassar, Noise and Air Quality Manager, Gannett Fleming Inc., Sharjah, UAE	Seminar Organizer	October 2015
4 th International Conference on Traffic and Logistic Engineering (ICTLE 2015), Orlando, Florida, USA	Presenter	April 2015
Memorandum of Understanding between the UAE Ministry of Infrastructure Development and the University of Sharjah (signed in May 2016)	Drafted and negotiated the MoU	2015-2016
Transportation Research Board 93 rd Annual Meeting, Washington, DC, USA	Presenter	January 2014
2 nd International Conference on Arabs' & Muslims' History of Sciences & the 11PPthPP Arab Conference on Astronomy and Space Sciences	Session Co-chair	December 2014
2 nd International Conference on Traffic and Logistic Engineering (ICTLE 2013), Istanbul, Turkey	Presenter	March 2013
Intel Science Competition- Arab World 2013 – Amman, Jordan	Co-chair of Judging Committee	Fall 2013
Intel Science Competition- Arab World 2012 – Dubai, UAE	Co-chair of Judging Committee	Fall 2012
6 th International Forum on Engineering Education (IFEE) Conference, Kuala Lumpur, Malaysia	Member of International Technical Committee	2012-2013
Intel Science Competition- Arab World 2011	Member of Organizing Committee	Fall 2011
5 th International Forum on Engineering Education (IFEE) Conference	Co-chair of Organizing Committee	2010

SELECTED PROFESSIONAL DEVELOPMENT ACTIVITIES

Event/Activity	Type	Period
Excellence of Digital Teaching and Learning (BlackBoard eTeacher Certification C)	40-hour Training Course	June 2021
International Symposium in Engineering and Business Administration	Conference	April 11-12, 2021
Road Asset Management System in UAE Federal Roads: Present and Future	Seminar	April 6th, 2021
Designing Digital Teaching and Learning (BlackBoard eTeacher Certification B)	40-hour Training Course	February 6-8, 2021

Transportation Research Board 99 th Annual Meeting, Washington, DC, USA	Conference	January 12-16, 2020
Fundamentals of Digital Teaching and Learning (BlackBoard eTeacher Certification A)	40-hour Training Course	December 15-19, 2019
5 th International Conference on Future Mobility, Dubai, UAE	Conference	November 7–8, 2019
The First Blackboard Teaching & Learning Conference RMEA, organized by BlackBoard in Dubai.	Conference	March 11-13, 2019
Technology-Enhanced Teaching & Learning – Changing Your Teaching to Match the Learning Needs of Students, organized by The Institute of Leadership in Higher Education, University of Sharjah	Workshop	February 25th, 2019
Urban Mobility Innovation Index Workshop, Dubai Road & Transport Authority	Workshop	February 27th, 2018, 2018
Transportation Research Board 97 th Annual Meeting, Washington, DC, USA	Conference	January 7-11th, 2018
International Conference on Future Mobility, Dubai, UAE	Conference	November 7–8, 2017
Smart Traffic Middle East Conference Dubai, UAE	Exhibit & Conference	8-9 May 2017
Scopus: Author & Affiliation Profiles, University of Sharjah Library	Elsevier Workshop	February 20 th , 2017
Annual Gulf Traffic Exhibition and Conference, Dubai, UAE	Exhibit & Conference	2011 - 2017
Dubai Road and Transport Authority's Innovation Lab on "Futuristic Shared Mobility in Dubai"	Workshop	November 26th, 2016
2 nd International Conference on Future Mobility (ICFM 2016)	Conference	14–15 November 2016
Annual Scientific Research Forum, University of Sharjah	Forum	2010-2017
Annual GISWORX: Regional GIS Workshops and Exhibitions for ESRI Users	Conference	2012-2016
5 th International Conference on Traffic and Logistic Engineering (ICTLE 2016), Dubai, UAE	Conference	25-26 April 2016
2016 GISWORX: Regional GIS Workshops and Exhibitions for ESRI Users, Dubai, UAE	Exhibit & Conference	19-21 April 2016
Air Quality & Noise Control UAE 2015	Conference	16-17 November 2015
Conference of ASEAN Road Safety 2015 (CARS 2015), Kuala Lumpur, Malaysia	Conference	November 2015
Transportation Noise and Vibration Analysis by Dr. Ahmed El-Aassar, Noise and Air Quality Manager, Gannett Fleming Inc., Sharjah, UAE	Seminar	October 2015
4 th International Conference on Traffic and Logistic Engineering (ICTLE 2015), Orlando, Florida, USA	Conference	April 2015
Smart Traffic Middle East (STME 2015) Conference, Abu Dhabi	Exhibit & Conference	May 2015
UAE Graduate Student Research Conference (GSRC 2015), UAE University, Al-Ain, UAE University, UAE Participated with Master's student Hassan Abu Hamdeh at the UAE Graduate Student Research Conference	Conference	March 2015
UAE Research Program for Rain Enhancement Science Seminar, University of Sharjah	Seminar	March 2015
The International Arab Conference on Quality Assurance in Higher Education, University of Sharjah	Conference	March 2015

Transportation Research Board 93 rd Annual Meeting, Washington, DC, USA	Conference	January 2014
2 nd International Conference on Sustainable Systems and the Environment (ISSE14), American University of Sharjah, UAE	Conference	February 2014
Geospatial Scientific Summit 2013, Sharjah	Conference	November 2013
Academic Program Accreditation Based on New Emirates Standards delivered by Ministry of Higher Education's Commissioners, University of Sharjah	Workshop	May 2013
2 nd International Conference on Traffic and Logistic Engineering (ICTLE 2013), Istanbul, Turkey	Conference	March 2013
MultiModal Middle East Exhibition & Seminars, Dubai, UAE	Conference	October 2012
Future Cities 2012 Exhibition & Conference, Dubai, UAE	Conference	October 2012
"Wiley Plus e-Learning: How to Enrich Student Learning Resources with Online Support Materials," University of Sharjah	Workshop	October 2012
Training of Trainers for Intel Easy Steps Program in Amman, Jordan	3-Day Training Program	June 2013
UAE National Qualification Framework Emirates and Program Assessment and Course Outcomes	Workshop	March 2013
59 th UITP World Congress and Mobility & City Transport Exhibition, Dubai, UAE	Conference	April 2011
Team-Based Learning, University of Sharjah	2-day Training Workshop	March 2011

HONORS & AWARDS

- University of Sharjah Annual Incentive Award for Teaching:
 - a. 2018-19
 - b. 2015-16
 - c. 2012-13
- Dubai's Road Transport Authority Award for Sustainable Transport - Best Academic Research Category:
 - a. 1st Place shared with Lubna Obaid, 12 Edition, May 2022
 - b. 2nd Place shared with W. Zeiada, L. Shakfa, and M. A. Khalil, 11th Ed., February 2019
 - c. 3rd Place shared with M. Abuzwidah and M. Al-Hmoudi, 11th Ed., February 2019
 - d. 2nd Place shared with A. Shanableh and M. A. Khalil, 10th Ed., March 2018
 - e. 1st Place shared with A. Shanableh and I. Sahnoon, 8th Ed., February 2016
- Best student paper presented at the 7th International Conference on Arab Women in Computing (ArabWIC 2021) with Master's student Fahmieh Lotfi, August 2021.
- Best student research submitted for the Emirates International Future Vehicle Award (with Master's students Abdul Razak, Sama, and Lubna), November 2018
- Marquis Who is Who in America 2005
- Graduate Research and Teaching Fellowships, University of Delaware, 2000-2004
- National Science Foundation Presentation Award, IGERT, 2000
- Fulbright Scholarship, US Department of State, 1998-2000
- Outstanding Student Achievement Awards, An-Najah National University, 1991-1995

- Engineering Student Award, Committee for the Advancement of Science in Palestinian Academia (CASPA), Washington, DC, 1994

PROFESSIONAL AFFILIATIONS

- Individual Affiliate, Transportation Research Board (TRB)
- Associate Member, American Society of Civil Engineers (ASCE)
- Associate Member, Institute of Transportation Engineers (ITE)
- American Society of Engineering Education (ASEE)
- Member, Palestinian Engineers Syndicate

RESEARCH INTERESTS

- Artificial Intelligence Applications in Transportation
- Intelligent Transportation Systems (ITS)
- Sustainable Transportation
- Highway Safety
- Transportation Planning in Developing Countries
- Environmental Impacts of Transportation
- Applications in Transportation (GIS-T)

JOURNAL REVIEW/EDITORIAL BOARD MEMBER

- International Journal of Transportation Science and Technology (editorial board member)
- Transportation Research Record: Journal of the Transportation Research Board
- International Journal of Intelligent Transportation Systems Research
- Advances in Transportation Studies: An International Journal
- Journal of Traffic and Logistics Engineering
- International Journal for Traffic and Transport Engineering
- International Journal of Simulation and Process Modelling

PROFICIENCY WITH SPECIALIZED SOFTWARE

- Machine Learning: MatLab, WEKA, and H2O
- Traffic: PTV VISSIM, VISSUM and VISTRO, HCS, CORSIM, SYNCHRO, TRANSYT-7F, and SIDRA
- GIS: ArcGIS, GeoMedia, MapInfo, and TransCAD
- CAD: Civil 3D, AutoCAD, and MicroStation
- Database: Oracle and MS Access
- Math and Statistics: MATLAB, R, and SPSS
- Operations Research: GAMS, Lindo, and ProModel
- Programming languages: C++, FORTRAN, and Visual Basic